

The Management REVIEW



FEBRUARY, 1942

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THE difficulties that face sales organizations every day are obvious enough. They have been frequently discussed in studies and in magazines and considered at sales meetings.

But this AMA Marketing Conference will not merely *pose* these problems, it will suggest definite solutions. There will be no theorizing, no sparring with issues, only specific discussion of day-to-day "bread and butter" tasks of selling—with *case story* backgrounds. If you are "sold up" on defense goods, if you are suffering from material shortages, if you are only indirectly affected by war production, you will hear how other concerns are meeting these same situations. The sessions will consider these principal phases of marketing—common denominators in every sales organization: POLICY, PRODUCT, PERSONNEL and PRESSURE.

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CONTENTS

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The Management REVIEW

The Management Index

Why the Axis Powers Can't Win.....	42
<i>Financial World</i>	
Essential Workers and the Draft.....	43
<i>The Wall Street Journal</i>	
These Ideas Will Cut Costs in 1942....	45
<i>American Business</i>	
An Appraisal of the Seniority Principle	50
<i>The Journal of Business of the University of Chicago</i>	
Substitution of Materials.....	53
<i>Purchasing</i>	
Selective Selling and the War.....	56
<i>Domestic Commerce</i>	
Company Practices in Cost Application	59
<i>N. A. C. A. Bulletin</i>	
How War Affects Insurance Coverages	62
<i>The Insurance Broker-Age</i>	
And Others	
The Management Question Box.....	64
Survey of Books for Executives	
The Economics of American Defense.....	69
<i>Reviewed by F. D. Newbury</i>	
Effective Foremanship	69
<i>Reviewed by Martin S. Firth</i>	
And Others	

SHOULD industry hire job applicants who have been classified 1-A in the draft? How long can it hope to retain 1-A workers? Will restrictions be placed on occupational and dependency deferments? What about apprentices?

These and other questions on the draft problem plaguing personnel men are answered in a study from *The Wall Street Journal* abstracted in this issue (*Essential Workers and the Draft*). According to the author, the armed forces may require only the present 1-A men and the 20-year-olds during the coming year. However, calls will inevitably widen, we are warned, and "key" men and breadwinners may be in uniform in 1943. While most deferments will continue to be based on dependency instead of occupation, the latter type of deferment will become increasingly important as more and more plants are converted to war work. But with a possible goal of 10 million men under arms, the indications are that "essential" workers will not be deferred after this year unless they are "irreplaceable." See page 43 for further pointers on the manpower problem.

THE seniority principle—long a sacred cow of labor—benefits neither the employee nor the employer and is a direct menace to society, declares Dan H. Mater in a survey of the railroad industry condensed in this issue. Swinging out with iconoclastic abandon, Mr. Mater declares that seniority reduces the efficiency of labor, denies opportunity to youth, and constitutes a revolutionary threat to the state. For the facts which he marshals to prove these contentions, see page 50.

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THE MANAGEMENT INDEX

General Management

Why the Axis Powers Can't Win

GERMANY, Italy and Japan are fighting against time. This war will be decided ultimately by economic factors, and the economic strength of the Axis is definitely on the downgrade, while the democracies are just beginning to develop their tremendous resources. On the balance sheet of decisive economic items, the advantages are all with the Allies.

The 39,600,000 square miles of anti-Axis territory have a total population of 1,500,000,000, against an Axis-dominated space of 3,100,000 square miles with a population of only 522,000,000. The effective fighting manpower of the anti-Axis countries—excluding China, India and the Netherlands Indies and counting only men in the 18-35 age group—aggregates some 56,600,000, against 28,500,000 for the Axis.

Of the world's wheat production the democracies control 69 per cent, the Axis only 21 per cent; for petroleum, the figures are 86 per cent and 3 per cent. Over 68 per cent of known coal resources belong to the anti-Axis belligerents, 29 per cent to the Axis. Simi-

lar are the figures for iron ore: 64 per cent for the democracies and 27 per cent for their enemies. In fact, North America alone produces one-third of the total world output of raw materials, while Axis-dominated Europe accounts for only one-fifth.

In industrial production facilities, the picture is even more favorable. Against the Allies' steel capacity of 117,000,000 tons the Axis can match a capacity of only 74,000,000—including that taken from Russia. The United States alone produces six times as much copper and as much lead and zinc as all Europe combined; with our allies, we are on the point of surpassing the Axis powers' prior advantage in the production of aluminum and magnesium. And in oil production the superiority of the United States is overwhelming: We produce 63 per cent of the world's total output; the Axis, only 3 per cent.

More impressive than our own economic strength is the weakness in the economic setup of the Axis and its lack of strategic materials and manpower. Both Germany and Italy are

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short of food and textiles, and their industrial machines are beginning to creak because of lack of lubricating oil. As to Japan, it is dependent on outside sources for some 80 per cent of its strategic materials.

Germany's shortage of industrial manpower is critical despite the conscription of about a million women for factory work, the drafting of foreign civilians, and the use of war prisoners. According to recent estimates, it needs some 36,000,000 workers for the full use of its industrial facilities, instead of the 24,000,000 now in the factories.

While the Germans are getting sufficient quantities of some staple foods, the diet is monotonous and lacks the vitamins necessary to keep public health at par, and the deficiency in fats and oils is outstanding. Italy is not much better off, having had to give up quantities of food products for export to Germany.

The lack of oil greatly increases the wear and tear on machinery, especially with continuous operations, and the lack of replacement parts frequently

forces suspension of work. The total value of accumulated industrial replacement demand has been estimated by the Germans themselves at over 5,000,000,000 marks for each year of the war so far, and this rate is now increasing in geometrical progression.

In examining our enemies' position, it would be unwise to ignore our own deficiencies in certain materials, such as rubber and tin—deficiencies which would make Japanese occupation of the whole of Malaya and the Dutch East Indies a calamity. However, for the time being we have enough stocks on hand for the requirements of our armed forces, and before those stocks are exhausted substitutes will have been found for rubber and new sources developed for tin.

To sum up: The economic potential of the anti-Axis powers far exceeds that of the Axis; in all branches of the military field, equality will soon be attained, with superiority not far off. Time works for the Allies and against the Axis. BY ANDREW A. BOCK. *Financial World*, January 28, 1942, p. 7:3.

Essential Workers and the Draft

WHICH of my employees will the draft take? What ones can I legitimately try to keep? A poll of officials shows that there are two sets of answers to such questions of employers—one for 1942 and another for the years thereafter.

For the rest of 1942, employees who are deferred because of their "essen-

tial" work are pretty safe. Nine-tenths of the two and a quarter million men needed this year for the Army, the Navy and the Marine Corps can be drawn from the present 1-A classification and from 20-year-olds—provided President Roosevelt puts the latter group high up on the draft list as he is expected to do.

During 1943 the rules will change, and how tough draft officials will be about deferments depends on the military events of 1942. Men with only one dependent or with persons partly dependent on them may be drafted; instead of being "essential," a worker will have to be "irreplaceable" before his position wins him deferment.

From these points companies can make obvious deductions. For 1942 these are: Don't count on keeping employees who have been classified 1-A throughout the year; don't hire 1-A men unless they can be easily replaced; and don't deliberately train a 1-A to be "essential" or "irreplaceable." On the other hand, fight to keep men classed as 2-B, especially if they are in any of the 400 critical occupations listed by Selective Service. Fight to keep apprentices who have had one year of training. Don't let a draft board overrule a real case of dependency.

As to 1943, it will be better to ask questions than to lay down rules. If the answers to the following questions about a man are "yes," better start looking for a replacement: Is his wife the only one dependent on him? Has she worked recently supporting herself? Is there outside income which could care for all his family except him? Would the proposed allotment to a soldier's family equal the amount he now contributes to the family's support? If the man's deferment hinges on the character of his work, ask: Can a woman do his work? Are women doing such work in other plants? Can his work be done by a man too old or too young for military service or by a

man deferred because of physical disabilities? Is he irreplaceable? (For a definition of "irreplaceable," note that the government will get one of its employees deferred for six months if training a successor would take six months or longer. But no longer deferments will be permitted unless replacing the man would mean training his successor for two years or more.)

Most deferments will continue to be based on dependencies, not on occupations. Of the men registered in the first draft, only 0.9 per cent were deferred because their work was necessary to the war, while 64 per cent were deferred because of dependents. The first of these percentages, however, will rise and the second will fall as the war progresses and war work pervades industry.

One thing is basic in all draft matters: The local board is a law unto itself. The Army and Navy may "advise"; the national headquarters of Selective Service may try to prescribe uniform regulations; but the local board can ignore the advice and bend the regulations.

However, the decision of a local draft board can be carried to a regional appeal board, and the man himself, his employer or the Army may make the appeal. Where local boards have become "hysterical" and overruled legitimate dependency or occupational deferment pleas, employers and men are being urged by national headquarters to use the appeal mechanism. BY EUGENE S. DUFFIELD. *The Wall Street Journal*, February 14, 1942, p. 1:12.

Office Management

These Ideas Will Cut Costs in 1942

EVERY business must do more of the vital things that make it useful in a war economy, less of the non-essential things which waste time, labor, materials and money. Many activities which were good business in peacetime are no longer justifiable in time of war.

Here are suggestions which may be helpful in speeding office work, cutting costs, eliminating waste:

1. Check all reports, statistical work, and records. Some reports which are made up daily can be made weekly; others now prepared monthly can be put on a quarterly basis. Each report should be tested with respect to actual use by *all* the people who receive it; just because a man wanted a report two years ago is no proof he still needs it.

2. Check all files. Filing cabinets take up floor space, are a heavy expense in rented quarters. In most offices many papers sent to the files belong in the wastepaper baler. But do not burn paper, even if it contains confidential records; buy a paper shredder and turn waste into a source of revenue or use the shredded paper for packing.

3. Check the number of copies stenographers make. Many keep a copy of everything for their own use. Is this justified when paper is scarce and expensive? Discourage the practice of sending copies of all correspondence to field men, salesmen, other depart-

ments, except where these copies are actually used.

4. Have some executive, preferably the controller, gather a sample of every form used in the business. See how many forms can be eliminated. Remember it isn't the cost of the stock for forms; it's the labor of filling them out.

5. Clean out all storerooms. Many storerooms are fire hazards packed with useless inflammable material. Appoint someone to determine the value of all materials stored other than active inventories. Where possible, turn this material into cash, selling it as waste if necessary.

6. Reduce sizes of printed matter: forms, advertising, catalogues, letterheads, etc. The number of times a full letter-sized sheet of paper is used for two or three lines is appalling; and here again it isn't so much the cost of the paper, it's the handling charges—it always takes longer to handle a big sheet.

7. Overhaul the returned goods, trial orders, "on approval," and consignment selling phases of your business. Recently one company discovered that a huge sum of money was tied up in merchandise on which small deposits had been paid but which had never been purchased. In no case were the deposits large enough to compensate for the loss of profit on the merchan-

dise which had been held in the "lay away" department until much of it was unsalable.

8. Reduce delivery service on small orders, discourage rush orders except where customers call for merchandise and take it with them or furnish delivery facilities. Customers can be taught to anticipate needs and educated to expect less frequent deliveries in times like these. Some of our more expensive "customer coddling" practices may have to be abolished for the duration.

9. Reduce the number of "specials." Perhaps the big customer who wants a special size, a special color or trim can be induced to get along with the regular merchandise.

10. Reduce the number of people who have authority to spend the company's money. This is an excellent time to funnel money through a smaller spout; in other words, there should be more people concerned with getting in money than with spending it.

American Business, January, 1942, p. 19:2.

Sense and Nonsense in Office Forms

EVERYBODY who has ever worked in an office knows that some organizations overload themselves with office forms, while others seriously need more or better office forms. There is a sound, efficient middle ground, of course, and what is actually needed is a program to hold paperwork to a reasonable level.

Take the matter of sizes of paper forms alone. One firm discovered several years ago that it was using 419 form sizes, which it promptly reduced to 150; and also that half its form needs were in only four sizes. Now a department wanting a form must answer questions such as these:

1. How necessary is the form?
2. Have all those who will use it approved it?
3. Have title, text and arrangement been checked for clarity, etc.?
4. What is it going to save?

5. Are form number, date line, signature line on it?
6. Does the form fit envelopes, binders, files? Is it adapted to its purpose?
7. Is spacing correct for machines, punching, window envelopes, etc.?
8. What quality of paper is practical and economical?
9. Has quantity desired been checked for usage, printing economy?
10. Has everything been double-checked?

Some of the facts learned about forms in the study of the subject were (1) that sulphite 16- or 20-pound paper is good enough for most forms; (2) that white is the most economical color unless color is important for classification; (3) that form numbers and simple keys printed on all copies make for efficiency; (4) that provision should be made for timely reordering of supplies of forms; (5) that it is economical to have electrotypes made of forms frequently used or complicated in setup; (6) that top executives should pass on form reorganization,

with the aid of a competent specialist.

Modern unit order-forms can effect remarkable savings; in some cases as many as 30 different forms may be typed at one operation, including every needed record for an order from its acknowledgment to the bill of lading and notice of shipping. This minimizes the factor of human error inherent in repeated copyings and provides cross-reference checks for filing and instruction records for different departments.

However, it is not always recognized

that merely to put through an order—just to record it and keep tabs on it—is an expensive process. When a sharp-brained office efficiency engineer discovers that it costs a firm, let us say, \$2.28 every time an order is put through, it becomes doubtful whether small orders up to \$5.00 should be put through in the regular way at all, or whether a cash system with only the cash register for record would not effect a substantial saving. *The Office Economist*, September-October, 1941, p. 10:1.

1

Suggestions for Conserving Paper

A MIDWEST distributor of stationery and paper products (Horder's, Inc., Chicago) has made public a list of suggestions designed to reduce materially the volume of paper used in business offices. These suggestions follow:

1. Write briefly and to the point—it's better business procedure anyway.
2. Write and type on both sides of letterheads and second sheets when you can't be brief.
3. Order 25 to 50 per cent of your letterheads, memorandum forms, and second sheets in a short size (5½ to 7 inches long) to use for short subjects.
4. Put carbon copy on the back of the letter being answered and eliminate most second sheets entirely. This practice will also substantially reduce the use of clips, pins and staples.
5. Use smaller-size memorandum and scratch pads: 4 by 6 instead of 5 by 8; 3 by 5 instead of 4 by 6; seldom 8½ by 11.
6. Buy lighter-weight paper. A change from 20-substance weight to 16-substance weight saves 20 per cent pulp and costs less.
7. Use 6¾-size envelopes instead of larger sizes.
8. Run all duplicated material on both sides of the paper.
9. Instruct the packing and shipping departments to use new materials in the most efficient manner possible and to re-use salvage from receiving department.
10. Instruct the receiving department to open incoming cases, cartons and packages so carefully that containers and materials can be re-used by you.
11. Do not destroy any waste paper or paper products. Some local agency will collect them to be reclaimed for the manufacture of boxboard, cellular board, and other packing materials.

—Domestic Commerce 1/22/42

Employees Suggest Savings

A QUESTIONNAIRE survey conducted among employees of The Studebaker Corporation has elicited more than 300 suggestions for office savings. Many of these are economies which the employees can put into effect individually. Among the suggestions are:

1. Do not use envelopes for inter-office mail unless it is necessary. If it is necessary, do not seal them unless the material is confidential; envelopes left unsealed can be used many times.
2. If you have regular correspondence with another office, accumulate the envelopes and return them to the sender periodically; they can be re-used without re-addressing.
3. Make rough drafts where material is likely to be corrected and retyped.
4. Turn used file folders inside out and re-use.
5. Instead of throwing circular letters, forms, reports and other papers, good on one side, into the wastebasket, accumulate them flat and send them to the stockroom weekly for conversion into scratch pads.
6. Use carbon from carbon-interleaved forms several times before discarding. If you have a surplus supply, send it to the stockroom for distribution to others.
7. In typing correspondence, carbon is usually worn out in the center area. In typing forms it is frequently worn out close to the margins. Margins not used may be cut off and used with small forms.

Experience with Cold Vaccines

COLDS have been cut 70 to 80 per cent at Armour and Company, Chicago, by the use of an oral vaccine, according to Dr. G. A. Share of the company's medical department. Employees are so impressed with the results that a large number are buying the preparation for their families.

"Our people start taking the vaccine right after the middle of September," Dr. Share said. "We give one capsule a day for seven days and then recommend that one be taken twice a week until the first of April, when the cold season is pretty well over."

Dr. Richard J. Bennett reports an equally successful use of vaccine among 250 workers of United States Steel. "Our figures," he said, "show this group of workers had 80 per cent fewer colds last year than the winter before. This year the company doesn't supply the medicine, but the employees are buying it themselves." Dr. Bennett, however, doesn't give full credit to the vaccine itself. He feels that it has a beneficial psychological effect in making people more "cold conscious" and more likely to guard against colds by observing hygienic rules.

Another large Chicago manufacturing plant reports that 66 per cent of a group of employees who took cold-preventive capsules last year reported no colds, 15 per cent mild colds, and 19 per cent severe colds. The management finds these results so hopeful that this year the treatment has been extended to all workers who wish to take it.

Most firms making an organized effort to combat the common cold spend from \$5,000 to \$6,000 a year for medication alone, exclusive of the cost of its administration and the check that must be kept by doctors and nurses. It's well worth the money, because they estimate they save approximately \$26,000 in time that would otherwise be lost through illness.

—Pictorial Review of the Chicago Herald-American 12/7/41

Personnel

Workers' Health and the 24-Hour Schedule

AS in the first World War, American industry is faced with the problem of 24-hour-day, seven-day-week operation. Fatigue is a health hazard and a hazard to continuous production. The addition of second and third shifts to plant schedules necessitates the establishment of the rotating shift.

To maintain workers' health and thereby peak production, industries operating on the 24-hour basis must take special precautionary measures to minimize the effects of night work and the rotating shift. The United States Public Health Service makes these recommendations:

1. Workers changing over from day to night shift every two or three *weeks* find it difficult to adjust their eating and sleeping habits. In plants operating on a 24-hour schedule, shifts should not be rotated more often than every two or three months.

2. Each nursing shift should rotate at the same time as the workers' shift, so that the nurses will always be acquainted with the workers they are treating.

3. Women with home responsibilities often try to do their housework during the day while working on the night shifts. Chronic fatigue in short order is the result. In general, women workers who have domestic duties should not be employed on the night shift.

4. A 60-hour week—on a 10-hour-day, six-day-week basis—may become necessary. Excessive increases in working hours lead to reduced efficiency during working hours, absenteeism and sickness. A 48-hour week—on an eight-hour-day, six-day-week basis—is preferable. Individual workers should have one day in every seven reserved for rest and recreation; this does not preclude continuous operation of the factory.

5. Organized rest periods help maintain production at a high level. Five- to 15-minute rest periods should be provided at the end of the first quarter, and again at the three-quarter mark, of each shift. This is especially important in repetitive monotonous work or heavy manual labor. Milk, soft drinks, sandwiches and candy should be available during the rest periods.

6. A particularly high standard of lighting is necessary in plants operating at night or under blackout conditions. Proper lighting reduces fatigue, improves morale and prevents accidents due to poor light or glare.

This six-point program should be based on the broader industrial hygiene service advocated by the United States Public Health Service, which includes:

Medical and nursing services available to workers on each shift; good plant housekeeping; adequate sanitary

facilities; adequate ventilation; control of exposures to hazardous operations or to noxious dust, fumes and gases; proper placement of workers in jobs for which they are physically and temperamentally suited; reduction of excessive noise (a well-known fatigue producer); health and safety education

programs, including instruction in proper posture on the job, sanitation, nutrition and mental hygiene; paid vacations of at least one or two weeks a year.

By SURGEON GENERAL THOMAS PARRAN. *Industrial Hygiene*, January, 1942, p. 4:2.

An Appraisal of the Seniority Principle

WHAT are the effects of seniority on the welfare of the employee, the employer, and society as a whole? How valid has it proved as a method of job allocation? A study of the railroad industry—a pioneer in the operation of the seniority system—indicates that the institution of seniority can benefit neither employee nor employer, and that it may constitute a distinct menace to the state.

It is true that employees generally favor the seniority system, but only because they have not thought the matter through. Seniority, in fact, is based on a fundamental error: the belief that the interests of all employees are identical. Actually there is a conflict of interest between senior men and junior men, between employees of above-average ability and employees of below-average ability. Seniority enables older workers to hold their jobs longer only by reducing the opportunities of the younger employees. Or, to look at the situation from a longer-run point of view, part of the price of old-age security is the acceptance of poorer jobs—and probably unemployment—

during youth. Moreover, as average tenure rises, the progress of an ever-increasing percentage of employees will be slowed; and the more able the employee, the greater his sacrifice. Another point is that the abolition of a single position may prevent dozens of employees from improving their lot; the value of their seniority is then reduced, and they are in the situation of a man who finds that inflation has robbed him of part of his savings.

From the point of view of the employer, several facts elicited in this survey are pertinent. It was found that up to a point employees of higher seniority are more efficient than those of lower seniority, but beyond this point the reverse is true. Since this relationship was found to hold even within a given five-year age group, it is evident that seniority is a separate and direct influence on efficiency, not merely the effect of age on efficiency operating through the fact that one cannot accumulate an additional year of seniority without getting a year older. Since within a given age group the efficiency curve rises and then falls,

depending upon the amount of seniority, and since age itself affects efficiency, the indication is that the effect of a given amount of seniority upon the efficiency of an employee depends upon the age-at-time-of-hiring. It also follows that seniority prevents the efficiency of an individual from reaching the peak of which he is capable.

Therefore, the problem becomes one of determining why it is that under the seniority system employee efficiency, on the average, not only fails to increase as much or as long as it should but, after a time, actually declines. And the main reason is that a system which reduces both the necessity of competing for advancement and the reward for successful competition can scarcely be considered an incentive system.

Seniority, then, affects the interests of the employer adversely in three distinct ways: (1) It causes the efficiency of a given individual to be less than it ought to be; (2) it acts to allocate men to jobs irrespective of their relative efficiency; (3) it prevents layoff and recall on a merit basis and discourages discharges and quits, thereby hindering the employer in maintaining an advisable age distribution and interfering with his efforts to prevent that general deterioration of work habits which so frequently results from having been in the same place too long.

These generalizations are supported by the following findings: (1) Typically, the sum of the seniority and age of an employee who is average or better in efficiency is between 33 and 60 inclusive; (2) the average age and average seniority of employees receiv-

ing merits have been rising less rapidly than the average age and average seniority of all employees, while the average age and average seniority of employees receiving demerits have been rising more rapidly than the average age and seniority of all employees.

Now, what is the effect of the seniority system on society as a whole? Can society afford to grant to all men the psychological victory of apparently continuing to become more valuable as they grow older? If it were a matter merely of dollars and cents, perhaps such a gesture would be justifiable; but when it is at the expense of postponement of youth's opportunity for employment and progress, it is much less defensible.

There is also the factor of revolution. It seems that there would be more inclination among unemployed men in their twenties and thirties to revolt against a general denial of opportunity than there would be among the old. An age-conscious group of old men could do little more than vote into existence "ham and egg" schemes—although such occurrences would be serious enough. If unemployment is unavoidable, it ought to be concentrated among those least dangerous to the state.

Seniority, if it gradually envelops the lives of all people in a society, will make an individual's success almost entirely a matter of growing older. And status by age is fully as dangerous as status by birth. BY DAN H. MATER. *The Journal of Business of the University of Chicago*, October, 1941, p. 384:35.

A.R.P. Check List

PRECAUTIONS which an employer should consider in preparing for the protection of his employees from air raids are listed in a report prepared for the Hartford Defense Council. The recommendations follow:

1. Each establishment should be prepared to be self-sustaining throughout periods of alarm, with no assistance from the community.
2. The sections of the building designated as shelters should be available to the public 24 hours a day through cooperative arrangements worked out with federal, state or municipal governments.
3. Detailed plans should be made for the movement of occupants in the building and for those who may wish to enter the building.
4. Special provision should be made for the additional risks which result from overcrowding buildings.
5. Employers should see that all employees know what to do in the event of an alarm. A suitable number should be trained in first-aid, fire-fighting, salvage and possibly anti-gas measures, and they should be properly equipped.
6. Definite instructions should be formulated for key workers who are responsible for such duties as closing gas or water valves and tending boilers. These persons should be posted in pairs in case of casualties.
7. There should be a guard system to foil attempts at looting, theft and sabotage.
8. Distinctive audible alarm systems should be installed.
9. Means of communication with essential public services—fire, police, water and medical departments—should be provided.
10. Megaphone and microphone loudspeaking equipment will probably be desirable for places of congregation.
11. A few simple portable screens may be desirable for use around first-aid cases.
12. Drinking water and toilet facilities should be available to shelter areas.
13. Consideration must be given to proper directional signs and painted indicators both inside the building and outside it in the immediate vicinity.

—The Chronicle 12/26/41

Accidents on the Third Shift

DEFENSE plants speeding up production by working three shifts in 24 hours often find an unbalanced accident frequency pattern when one shift is compared with another. For instance, *Labor Standards* reports that in a large defense contractor's plant the third shift (midnight to 8 a.m.) has an accident frequency rate of 15, compared to 7.96 for the 8 a.m. to 4 p.m. shift and 6.82 for 4 p.m. to midnight.

As can be seen from these figures, there is little difference in accident rates between the first and second shifts, but from midnight to 8 a.m. the frequency rate shows a decided increase. Similar reports from other companies show not only a greater accident frequency rate for the third shift but lower production as well.

Some of the more obvious causes of this condition are: fewer skilled employees on the third shift; fatigue due to daytime activities or, in some cases, to a second occupation; less effective supervision.

—National Safety News 11/41

Production Management

Substitution of Materials

WHEN you can't get materials called for on the requisition or when you can't get them in sufficient quantity or in time to maintain the production schedule, the obvious answer is to find a substitute material that will serve the purpose. That principle has been strenuously publicized, thoughtfully considered, and assiduously applied ever since present shortages were foreseen.

How has the problem of substitutes come home to the manufacturer? How is it being met? And how is it affecting production? By letter, questionnaire and interview the experience of 160 purchasing agents in representative manufacturing companies throughout the country has been ascertained.

In 52.5 per cent of the companies surveyed, substitutions of materials had already been adopted—that was the situation as of August 1. Several others expected substitutions would be necessary in the near future, and still others—fortunately free of the problem at the time—indicated that they would probably make a very different report at the end of the year.

In its simplest form, substitution has been achieved through standardization. A slight revision of specifications, in many cases, has made it possible to substitute tools of standard sizes for the special equipment formerly used, and in some cases the new practice is considered an improvement and will

probably be continued after the war.

The more typical case, however, is that in which some basic material in some product or part of a product must be replaced by some other material more readily obtainable. Frequently this means a change in the process of manufacture, and almost always a change in the characteristics of the product—for the worse. For example, one manufacturer reports as a successful substitution the use of steel tubing instead of brass, but he remarks that corrosion has shortened the life of the product by 75 per cent. Furthermore, he isn't sure of getting his steel on time.

Another difficulty is that substitution possibilities lie chiefly with a relatively limited group of known materials, many of which are already limited in supply. In the list of substitutions disclosed by this survey, we find aluminum in one form replaced by aluminum in another form; aluminum, zinc and neoprene replaced by rubber; aluminum replaced by steel; steel, in turn, replaced by wood, plastic and bronze; bronze replaced by plastic—the end of the road is soon reached. One manufacturer substituted fiber for Dow-metal; when fiber deliveries stopped, he went to sheet metal; when he could no longer obtain the sheet metal, he discontinued the item. Another manufacturer substituted a plastic for stain-

less steel but soon found himself unable to obtain the plastic.

Of 22 cases in which comparative cost data were available, there were eight in which costs were higher by reason of substitution, eight in which there was no appreciable change in cost, and six in which costs were reduced. These figures, however, must be accepted with reservations because the products themselves have changed in many cases; for example, a luggage manufacturer who substituted steel covered with leather for aluminum frames has not raised his costs, but he has sacrificed light weight and sales appeal.

A significant fact is that machining and finishing costs have been responsible for a number of the increases and have raised costs as much as 15 per cent despite the use of cheaper ma-

terials. In two cases where cast iron was substituted for aluminum, savings of 22 per cent and 40 per cent in the cost of material were largely offset by machining cost. On the other hand, a substitution of plastics for forgings has brought about a saving in machining costs that has more than offset the higher cost of material.

The most significant saving reported was 55 per cent, an economy effected by the substitution of a rubber composition for aluminum; and the change improved the appearance of the product. In another case, waterproofed fiber-reinforced kraft was substituted for burlap as a wrapping material, and a net saving resulted because the sheets could be procured already cut to size. Such instances provide the incentive for continuing the search for substitutes. *Purchasing*, September, 1941, p. 55:7.

Pay Dirt

FOUR years ago the Caterpillar Tractor Company, of Peoria, Illinois, established a reclamation department which devotes its entire time to salvaging and reclaiming. The department now has a working force of 50, and has shown steadily rising gains in amounts and values saved.

To locations that are strategically placed to reduce handling of materials comes the scrap—metals, used machinery, obsolete jigs, building materials, crates, corrugated paper, even discarded advertising literature. Equipment includes a briquetting machine,

a scrap steel baler, a hacksaw blade grinder, a woodworking machine, a rip saw, a cut-off saw, an alligator shear, a punch press and a squaring shear.

The parent activity from which other phases of the reclamation work grew is the tool reclamation crib. This department maintains a complete cross-file of tool prints, which eliminates guesswork in determining the size to which drills, reamers and similar tools are to be reground. Files are sent to a file manufacturer and come back slightly thinner but nonetheless ef-

fective; plug gauges are reground to progressively smaller sizes. All high-speed steels, no longer useful in the form of tools, are spark-tested for analysis and boxed separately for shipment. Some 1,000 lead hammers for general factory use are made monthly from scrap lead.

A study of grinding wheels has enabled the company to use them in many new ways after they are taken off the machines for which they were originally purchased. Standardization of arbor holes has made it possible to use the same wheel on as many as three different machines and still provide the grain size and bond that is needed. The work of recutting is done by outside vendors; wheels are recut to size, counter-bored if necessary, and speed-tested. By changing wheel designs, a system of progressing wheels from one machine to another without added alterations has been developed. By increasing spindle speeds on a number of stand tool grinders, the company can now use wheels down to the blotter.

Some 30,000 board feet of lumber are being reclaimed and cut to size for various requirements each month. Wood which would not be worth while

saving is placed on a kindling pile from which employees may take it home.

Sturdy paper cartons, which were once fed into the incinerator, are now salvaged; they are flattened, and the protection discs and separators used for packing purposes are stamped from them at the rate of 500,000 a year. Scrapped advertising literature is separated into sheets and used in the foundry, replacing special paper formerly purchased.

The scrap yard, located near the foundry, is the focal point for an endless stream of scrap which is promptly examined and segregated. In its dealings with the foundry, the reclamation department functions like an individual company receiving and filling orders in carload shipments.

In this yard apprentices undergo the two-year welders' training course. Knowledge of cutting is gained under actual working conditions, and since all types and sizes of material must be reduced for foundry consumption, there is an opportunity for the apprentices to acquire broader experience than they would in any other department. *National Safety News*, December, 1941, p. 17:4.

Plan to Push Bond Purchases

WORKERS who buy defense bonds will be eligible to share in the company's earnings under a plan formulated by a Wisconsin manufacturer. At the Vulcan Lead Products Co., of Milwaukee, a worker who buys \$100 worth of defense bonds is considered a stockholder in the company with \$100 worth of stock. While he is not given actual ownership of the stock, he receives the earnings to which an equivalent amount of stock would be entitled.

The plan has received much favorable comment from Washington officials and, according to Arthur Elsby, vice president, 100 per cent employee participation in the program is expected.

—*NAM News Letter* 1/24/42

Marketing Management

Selective Selling and the War

CONVERTING our economy from a peacetime to a full wartime basis will have repercussions in every corner of the business world. As a result of war demands, there will be a curtailment in the amount of consumption goods flowing through the ordinary channels of distribution. Reduction of the magnitude inevitably to be involved, as well as the uneven incidence of the cuts, will require readjustments throughout the distribution system.

Full mobilization of resources for the war makes it imperative that efficiency in the operating methods of business be increased in order that material and labor be conserved for the war effort and that individual businesses survive. These two problems—dislocations caused by shortages in consumer goods, and improving the efficiency of marketing methods—are related and can be attacked together through a policy of selective selling.

Reduction in the volume of goods available for sale to consumers will result in a series of questions for the manufacturer and the wholesale distributor of such goods. Within the limitation of a restriction program not involving rationing by government control, how should he divide his limited supply of goods among his customers? Should he assign to each customer a quota of his past purchases, or should he limit his sales to certain customers?

Should he attempt to make and sell every item in his complete line, or should he make (or buy) and sell only certain profitable items in his line? Corollary questions will arise in regard to other matters, such as territories to be covered, order sizes, and credit terms.

Since many distribution expenses are fixed costs in the short run, operating-expense ratios will tend to rise as the physical volume of sales falls. To maintain net profits and to keep prices down, the distributor will have to reduce his per-unit cost of handling a smaller physical volume.

Selective selling provides a means for meeting some of these problems growing out of the transition to a war economy. It can become a tool for dealing with the problem of allocating scarce goods as well as with the problem of cost reduction.

Selective selling is a policy of confining marketing efforts to *profitable* customers, order sizes, commodities, and sales territories. The results of every distribution-cost analysis that has been made to date have shown that, within the individual firm, a large proportion of customers, orders and commodities are unprofitable.

The widespread existence of large segments of sales that are unprofitable is due to a number of factors. One of these is undoubtedly the common practice of viewing sales volume and dis-

tribution costs in the aggregate instead of analyzing them in detail.

In a study made of a wholesale druggist, it was found that 64 per cent of the number of his customers (those whose annual purchases were \$100 and less) accounted for less than 2 per cent of his sales volume. There was an allocated expense of 200 per cent of sales in serving those customers whose annual purchases were under \$10, and the cost of serving customers whose annual purchases were between \$10 and \$100 amounted to 59 per cent. The average expense for the business as a whole was 16 per cent.

A hardware wholesaler, as the result of an analysis indicating conditions similar to these, eliminated about 50 per cent of the number of his customers and dropped about 30 per cent of the number of items carried in stock.

An appreciable decline in dollar sales volume occurred; but in the first year after this selective selling policy was put into effect, dollar operating expenses were reduced significantly and dollar net profits were three times as great as annual earnings had been previously.

Any manufacturer or distributor can undertake a relatively simple analysis to identify the unprofitable portion of his sales volume. Or he can use more accurate and more comprehensive methods of distribution-cost analysis, such as those developed by the Bureau of Foreign and Domestic Commerce.

By the use of such methods, dollar distribution costs can be allocated or imputed to various small segments of total sales (such as customer-size or

order-size groups, or commodity departments) and compared with dollar gross margins in order to identify the profitable and the unprofitable portions of the sales.

What should be done about the unprofitable business? This is a matter of policy to be determined by management. Several things can be done in an attempt to turn unprofitable business into profitable business (such as a decrease in services, an increase in volume, price differentials). If the business remains unprofitable, however, the policy can be determined in large part (although other factors need to be considered) by the answer to the question: What would be the effect on the expenses and profits of the entire business if the unprofitable sales volume were eliminated?

In considering the elimination of a block of unprofitable business (after having identified it), an estimate of the effects on dollar expenses and net profits can be based on the following factors:

1. The amount of dollar gross margin that would be given up.
2. An accurate estimate (based on distribution-cost analysis methods) of the dollar amount of expense that can be saved as a result of eliminating the unprofitable block of business (i.e., the "marginal" or "differential" expenses).

If a comparison of these two factors reveals an excess of dollar gross margin over differential expense, which helps to cover the fixed expenses of the firm, then the firm is better off *with* this business. However, if the gross margin

fails even to cover the differential expense, then the firm can increase its dollar net profits by eliminating the unprofitable block of sales.

If past experience furnishes any guide, a policy of selective selling offers to many businesses an important opportunity for reducing distribution

costs and increasing net profits. For the economy as a whole, a widespread adoption of selective selling policies may lead to a reduction in distribution costs, thus permitting maximum prices to be set at a lower level. BY CHARLES H. SEVIN. *Domestic Commerce*, February 5, 1942, p. 3:3.

Maintaining the Sales Force

FIVE steps to insure that a seasoned crew will be on hand to form the nucleus of the postwar sales force were outlined by Frederick B. Heitkamp, Vice President of the American Type Founders Sales Corporation, at the Third New England Sales Management Conference in January. The steps Mr. Heitkamp advocates are:

1. Study present capacity and see how large a sales force current profit plus reserves will permit you to keep. (Be sure to consider salesmen's compensation in relation to reserves as well as current profits.)

2. Formulate your compensation plan in the light of what the salesman needs and what you can afford to pay him. Discuss the matter individually with him, but avoid committing yourself in writing for a definite period of time, for no one can predict how soon the plan may have to be revised.

3. Sell the salesman on the new compensation plan but offer him the privilege of finding another job if he wishes.

4. Find ways to keep him productively busy during oversold periods. (One excellent way is through a sales training program.)

5. If it is necessary to give a salesman a non-selling job in another part of the organization at a reduced salary, consider supplementing his income from the sales budget to keep him satisfied.

—Dartnell News Letter 1/17/42

PACKAGING CONFERENCE AND EXPOSITION

The Twelfth Annual Packaging Conference and Exposition of the American Management Association, will be held April 14-17 at the Hotel Astor, New York City.

Financial Management

Company Practices in Cost Application

THE defense program has presented several problems to the cost accountant, some relatively new and others brought into prominence because of the greatly increased rate of industrial activity. Among these are the problem of the abnormally high ratio of overtime costs to total costs and the question—for companies which absorb overhead on a normal capacity, normal volume or standard volume basis—of whether normal capacity figures should be adjusted to give at least some recognition to current production volume.

Current practices in these two areas of the accounting field were indicated in a survey conducted by the National Association of Cost Accountants in which 263 companies reported their methods of meeting the problems. Replies dealt only with costs on goods manufactured for stock or for non-government customers; and data received from four companies working entirely on government contracts were excluded.

Of the 263 respondents, 122 include the overtime premiums in inventory values; 78 completely exclude them from inventory values, and 63 include them partially. The original charge is made to the direct labor account in 99 cases, recorded as an element of factory overhead in 154 cases, and kept in a variance account closed directly to profit and loss in 10 cases.

It is significant that direct labor overtime premiums are almost three times as likely to be included in inventory values under an "actual" cost system as under a standard cost system. The "actual cost" viewpoint contrasts here with the standard cost viewpoint, and perhaps also with the practical viewpoint. By capitalizing the extraordinary costs of this period in inventories, profits are taken now which will be offset by writedowns with the next swing of the business cycle.

A second question concerns the allocation of the cost of direct labor premiums to products or lines of product. Under an actual cost system it may be assumed that the individual job or process worked on during the overtime hours is charged for the specific premium. But the particular job worked on in overtime hours is no more responsible than any other job in the shop; accordingly, the allocation of overtime is practically on the basis of chance. Obviously, in any plant where overtime is significant and costs are accumulated on a job-cost basis, serious consideration should be given to the revision of cost accounting methods which permit costs to be allocated on the basis of chance.

Overtime premiums paid to indirect workers, in all but three of the companies reporting, are included in the manufacturing burden; and in the other three cases the premiums are

recorded in variance accounts which are closed to profit and loss currently. Another type of added labor cost of some importance at the present time is that incurred by paying night-shift premiums. Of the 237 companies which operate night shifts, 149 pay premiums for them, the largest group absorbing the cost in inventories and the next largest writing it off against current income.

A third type of added labor cost covered in this study is the cost of conducting an apprenticeship program. Of the 263 companies, 136 reported that an apprenticeship program for direct labor was being carried on, and 134 of these stated how the cost was treated: 59 include it in inventory value, and 75 write it off against current income.

Admittedly the most difficult problem of industrial accounting is the application of overhead to goods produced, and this problem is intensified when industrial activity is abnormally low or abnormally high. Because of the fixed costs involved, application of actual overhead costs results in high unit costs in period of reduced activity when selling prices are low, and low unit costs in periods of increased activity when selling prices are high. Of the 263 firms covered, 237 reported the use of predetermined burden rates; 14 reported the use of actual burden rates; the remaining 12 failed to report the basis used in applying burden.

In arriving at a predetermined burden rate, two estimates are necessary: (1) an estimate of the volume in terms of units, labor hours, machine hours or other common measure of production;

(2) an estimate of total overhead for the forecasted volume of activity. In practice, volume of production is stated either at the expected volume for the period for which the rates are set or at normal capacity, normal volume or standard volume. Where the former basis is used, any over- or under-absorbed burden merely reflects differences between the estimated volume and expenses and the actual volume and expenses—the balance is likely to be relatively small. Where the burden rates are arrived at on the basis of estimated normal capacity, under-absorbed balances usually result from operations at less than normal and over-absorbed balances from operations at more than normal.

Of 154 companies reporting use of the normal capacity basis, seven failed to indicate whether or not an increase had been made in the normal capacity figures; 92 said there had been no recent change; 55 stated that an increase had been made. Accordingly, it appears that the current expansion of industrial activity has not resulted in any stampede to increase normal capacity figures and reduce burden rates. It would seem that industrial accountants view the current period of increased activity as just one of the fluctuations which go to offset the below-normal years.

In view of the prospects of considerable over-absorption of burden for the current year, and possibly for the years immediately ahead, interest attaches to the practices followed in disposing of the over-absorbed burden balances. By far the greater number

of companies are carrying it in total to profit and loss; a much smaller group (15.5 per cent) apports it between profit and loss and inventory;

and only 5.5 per cent credit it to a reserve to be used in offsetting future under-absorption. *N. A. C. A. Bulletin*, August 15, 1941, p. 1551:20.

Where Do Controllers Come From?

FROM a recently completed study of the experience, training and business background of a large number of successful controllers it is evident that the average controller comes to his position after long training and experience in accounting, finance and clerical duties. Figures show that controllers work for their companies an average of six years and nine months before becoming controller.

And most of the men who were brought to their present companies to assume the duties of controller had experience surprisingly similar to those who worked up to the controller's job from minor positions in the same company. Of the men who received their major business experience before coming to their present companies as controllers, by far the largest number were in public accounting work. Next largest classification of previous experience includes controllers who were once accountants. Others were teachers, credit managers, treasurers, secretaries, cashiers, paymasters, sales managers, mechanical engineers, lawyers, purchasing agents, statisticians, bank examiners, and office managers.

Today the controller assumes new and greater responsibilities. He needs the judgment, the acquaintanceship with materials, methods, processes and costs which he may have acquired in his earlier experience. But more than that is needed, as William L. Batt, president of SKF Industries, brought out in a recent talk to the Controllers Institute of America. Mr. Batt said: "You must be a better salesman, and you must learn to be more vocal because you, more than anyone else, understand the significance of smaller things which have great effect on the business, but which others in management are prone to overlook." Mr. Batt had been urging controllers to take more interest in labor and personnel problems in business.

—*American Business* 9/41

AMA FINANCE CONFERENCE

The Finance Conference of the American Management Association will be held at the Hotel New Yorker, New York City, on Tuesday and Wednesday, March 24 and 25.

Insurance

How War Affects Insurance Coverages

MANY insurance policies now in existence contain "war risk exclusion clauses," and these clauses are now operative. But there are so many differing opinions on the application of the clauses that it will take court decisions to settle some of the problems that will arise. However, two general principles can be laid down:

1. Insurance policies covering *property* contain war risk exclusion clauses and do not cover risks defined in those clauses.

2. Insurances covering *legal liability* do not contain the exclusion clauses and continue to cover war risks, even to insure the liability of the assured for injuries by enemy action. But the chances of fastening any such liability on property owners are remote.

Workmen's compensation, common-ly, is *not* affected by the war, and *does not exclude* personal injuries to employees caused by air raids, bombardment, other war acts or fifth-column activities. The question is not, therefore, whether such insurance covers, but rather whether war injuries to employees would fall under the Workmen's Compensation Act. If employees are injured by bombs during the course of their work, and ordinary compensation awards are made to them, the insurance companies might take the matter to court, but they would still be obliged to protect the com-

pensation policyholders against any awards ultimately held valid.

A complicated question is whether the Compensation Act would authorize an award to an air raid warden injured while engaged in defense duties. If he were acting purely as an air raid warden away from his employer's premises, there should be little chance of such an award; but if he should be acting in a dual capacity—carrying on his work as well as his civilian defense duties—the answer would be less certain.

Brokers express the opinion that O. L. & T. policies definitely provide coverage during air raids, but there is slight chance that the assureds would be held liable for injuries by actual bombing. If proper fire-fighting equipment were not provided, owners, managers or tenants might be charged with negligence and held liable for air raid injuries, although the claimant would have to show that the lack of such equipment contributed to his injury.

While it is not likely that any claim would lie against a property owner for an accident promptly following damage to a building, nor that an insurance company would refuse to defend a suit unreasonably instituted, a different situation might arise if the building were allowed to remain in a dangerous condition for an undue period. In that case claims might arise and insurance might not cover.

Another point is that a building insured under an O. L. & T. policy with a specific representation of its nature when the insurance was placed or the policy written might be held to have lost its quality as a building, or as such a building, by reason of the bombing. The wreck, after the damage, might be uninsured and uninsurable.

Automobile fire policies contain a war risk exclusion; automobile liability policies may or may not exclude war risks. And collision insurance may be attached either to the liability policy or to the fire policy. A question which has already arisen on the West Coast is whether the war risk exclusion is sufficiently stringent to eliminate claims for damage caused by collision during blackouts when no actual raid is in progress; so far, insurance companies are disposed to be liberal in this matter.

Plate glass insurance policies, in general, contain no war risk exclusion, and apparently there is no general clause which would eliminate war risk damage. However, there is reason to believe the companies are now considering such clauses.

Boiler insurance differs from plate glass insurance in that it requires that any damage insured by the policy must be *accidental*. Thus, even though the boiler policies contain no exclusion clause, air raid damage might not be covered because the companies could claim it was not accidental. Moreover, it is reported that boiler insurance officials may seek to add a war risk exclusion clause to outstanding policies by endorsement.

Residence burglary policies, as a rule, do not contain any war risk exclusion clauses, but they usually cover only loss from *within* the building. This takes care of looting within the damaged premises, but looting of valuables spilled out of the premises by collapsed walls would be a different matter. And mercantile burglary insurance, apparently, would not give any continuing protection at all, since, after the premises are cracked open by bombing, there could be looting without forcible entry leaving visible marks.

At the present time, almost all fire insurance, use and occupancy, sprinkler leakage, riot, civil commotion and explosion covers, and rents insurance policies carry war risk exclusion, as do fine arts insurance, tourist floaters, and inland marine covers. It is practically certain, therefore, that comparatively few assureds are protected in those respects.

The Extended Cover Endorsement gives partial war risk protection now that the war risk exclusion has been amended. The chief change is to substitute the words "engaged in hostilities" for "warlike operations" and "civil commotion" for "civil strife." Also, fifth-column activity is not so clearly excluded. Private property near flying fields can now be more easily insured against damage by American aircraft during maneuvers, test or training flights.

All in all, there is little or no market with any insurance companies for any war risk insurance ashore. However, it is probable that any loyal American citizen would be properly reimbursed

by the government for air raid damage, if the total of all claims did not exceed \$100,000,000. The War Insurance Corporation, set up by the Reconstruction Finance Corporation, has a capital of \$100,000,000 which, it is understood, will be devoted to reimbursement of American property owners for damage to their properties, except bills, currency, evidences of

debt, securities, paintings and other objects of art. This plan is a stopgap until some better system is devised. No regulations have been issued on presentation of claims, and the situation is very loose at present.

From a memorandum of The Insurance Brokers Association of New York. *The Insurance Broker-Age*, January, 1942, p. 3:4.

The Management Question Box

Questions and Answers on Management Practice Based on the Inquiries Received by the AMA Research and Information Bureau.

Individual replies are made promptly either by mail or telephone to inquiries received by the Research and Information Bureau. This service is available to executives of concerns holding company memberships. The questions cited here are those which it is believed are of general interest to the membership.

Company Allowances for Draftees' Dependents

Question: We understand that some companies are making a special allowance to drafted employees who have dependents. Is that the case and, if so, what is the usual allowance?

Answer: A few of the companies granting allowances to employees in military service are making somewhat higher payments to married men and those with dependents, and several concerns that have hospital plans covering employees' dependents have agreed to bear the cost during the original period of leave—one year and 40 days. A few companies are experimenting with a new type of payment specifically for dependents, but all of them are setting a definite date on which their policies will be reconsidered in the light of experience and of conditions existing at the time. July 1, 1942, or January 1, 1943, is the date set, except in the case of one company which reserves the right to discontinue the plan at any time on 30 days' notice. This particular company inaugurated its plan in September, 1940.

One plan in effect in two companies gives employees leaving for military or naval service a lump-sum payment of two months' wages or salary if they have been with the company a year or more, and of one month's pay if they have been employed less than a year. Before leaving, the employee makes application for dependents' allowance on a prescribed form, stating his relationship to his dependents and the amount of his anticipated income; then, if the application is approved, payments for dependents begin two months after his departure and are made at the end of each calendar month until June 30, 1942. The payment will be the amount by which the employee's rate of pay with the company exceeds his rate of pay from the government, up to a maximum of 50 per cent of his regular rate of pay. Government pay will be interpreted to include base pay plus any allowances for service, uniforms, rent or subsistence, and any unemployment benefits or allowances to be received from the state and/or federal government for the support of dependents.

Only wife, minor children and parents will be considered dependents under the above plan, but other plans make provision for all those wholly dependent on the man for support, or for all those on whom income-tax exemption is allowed; or they permit the employee to submit evidence to prove the dependency of those not in the immediate family.

The special allowance for dependents in two other cases is one-half the difference between government pay and company pay, and payments begin after the period covered by special compensation and end January 1, 1943, unless the company later decides to continue them. The special compensation in these cases is the difference between government pay and company pay for the first three months for those who have been with the company a year or more at the time they enter military service; for those who have been with the company less than a year, a similar allowance is made for the first two weeks.

Another plan pays "to the employee or his dependents, in such proportions as the company may determine, the employee's regular wage or salary in effect on the date of entry into service for the first two months of his leave of absence," with deductions only as required by any applicable law and for employee contributions to the company insurance and retirement plan. After the two months, and until July 1, 1942, unless the company provides for an extension of time, the company will pay 50 per cent of the employee's regular wage or salary less government pay and less deductions as above. If 50 per cent of the employee's regular pay does not exceed the government pay, the company will pay his insurance and retirement plan dues.

In the case of the company that has made special payments for dependents since September, 1940, the provisions of the plan are as follows:

A special allowance of one month's pay is followed at the end of the month by payment for 11 months of an amount equal to the difference between government pay and the percent of company pay indicated by the following schedule:

<i>Length of Service</i>	<i>Percent of Company Pay</i>
10 years and over	100
8 to 10 years	90
6 to 8 years	80
4 to 6 years	70
2 to 4 years	60
Less than 2 years	50

Note on Insurance for Drafted Employees

Company policies with respect to group insurance for employees in military service were summarized in "The Management Question Box" for January. Since then, additional statements of policy received have brought the total up to 38.

Eighteen of these companies are canceling group insurance and, in most cases, informing their men of the advantages of National Service Life Insurance. Nineteen others are canceling the group insurance and paying for an equal amount of National Service Life Insurance—usually for a period of one year, although four firms will cover the entire time the employee is in military service, and one of them will include a period of "six months and 40 days after the termination of the war."

A number of inquiries have reached this Bureau concerning methods of arranging the payment of the premium on National Service Life Insurance. Title VI of the Second Revenue Act of 1940, which provides for this insurance, states that premiums "shall not be required in advance for periods of more than one month each and may at the election of the insured be deducted from his active service pay or be otherwise made." The Veterans Administration, which is in charge of this insurance, points out that a man making application for it may secure a statement attesting his application from the officer delegated to handle insurance in his division. The statement may be sent to the company so that it may reimburse him for the premium. Or, if the man wants to take out a policy larger than the one he had under group insurance, he may make a separate application for the additional amount, receive a separate statement for each application, and send the company the statement for the amount equal to his group insurance. For men who have secured National Service Life Insurance before a reimbursement offer was made by their employers, the Veterans Administration, Insurance Department, Arlington Building, Washington, D. C., will supply a statement on request.

Employers generally consider it impractical to reimburse their men for each National Service Life Insurance payment at the time it is made because of the small amounts involved and the numerous changes of address. The method in most general use seems to be to send the employee a check for the entire amount of the year's premium. A few companies have undertaken to pay the premium quarterly. In most cases (although not in all) the company requests some evidence that the insurance has been taken out; this may be a statement from the commanding officer or the officer delegated to handle insurance in the division, or a form of some kind prepared by the employer. One firm has prepared a simple form on which the man may list his policies with the dates of subscription and the amounts of premiums and have his statements certified by the officer in charge.

Several companies will not reimburse the employee for premiums until he returns to his job. A few give the man a check for the amount when he leaves, or include this amount in the supplemental compensation paid to those leaving for military or naval service. One company carries group insurance for the man for 120 days after he leaves, then sends him a check for \$10 toward his National Service Life Insurance.

In several cases company policies provide that those who return to active employment prior to the expiration of the period for which the company has paid the premium for governmental insurance will be required to reimburse the company for the unexpired portion of the advance payment.

The period of time during which group insurance is continued after a man leaves for service varies. In some cases, the insurance is canceled when he leaves or at the end of the month; in others, it is continued for a month, two months, three months, or 120 days. One concern is continuing group insurance until July 1, 1942, despite the higher premium caused by our entrance into the war. Employees of this company are covered under their group insurance to the amount of two years' salary.

A definite date is usually set for cancelation of group insurance for those already in the Army. In some cases provision had been made that such insurance would be automatically canceled if this country entered the war. Men are informed by letter of the necessity for the cancelation of group insurance and are reminded that they may still apply for National Service Life Insurance without examination until April 20, 1942; also that they will continue thereafter to be eligible for it if in good physical condition.

Most companies specify that existing policies will be subject to review and change as circumstances necessitate. Several set definite dates for review of their policies.

New Office Gadgets Cut Costs

TWO new devices to aid the office manager in his economy efforts are the Dupli-Typer, a typewriter attachment which carries one to four extra ribbons, and the Paper Welder, which saves the cost of wire staples and eliminates the extra weight of the metals.

The typewriter device makes possible substantial savings of time and of carbon paper expense on multi-copy continuous-form work. It consists of a metal frame arranged to fit over the typewriter platen and provided with lugs to receive the especially designed ribbons. These are of fabric with slotted fiber tabs to fit over the lugs and are of a length to be held taut by the frame. Purple is the standard inking, as it has the longest life, but black and black-and-red are available.

The Paper Welder operates in much the same way as the conventional office stapler, but it fastens by crimping the sheets. The device will accommodate up to ten sheets of ordinary weight paper, and sheets thus fastened may be separated by laying them on a hard surface and smoothing out the indentations with any rounded, hard object.

The Paper Welder may be used to save the cost of staples in fastening sheets for filing, but it is not recommended for the cheaper grades of yellow second sheets.

—*Business Ideas for Increasing Profits* (Prentice-Hall, Inc.) 12/1/41

Workers' Foot Clinics

ONE cause of fatigue, mental distraction on the job, and time off for illness is foot pain, and the alleviation of this disability has been on the whole neglected by plant medical departments. With increased employment of women workers, this problem may assume new importance.

Many of the causes of foot trouble are preventable and can be eliminated by expert advice, and a great deal of the necessary treatment is simple and requires merely regular short attendance at a clinic. Firms in Britain, which have established such clinics, have found that a small outlay has paid dividends in happier, more productive workers.

One of the earliest chiropody clinics was opened in London in 1923 in a large wholesale and retail confectionery firm. At one time 60 per cent of all cases inspected had defective feet, but since the inception of the scheme the firm reports that absenteeism from foot disabilities has been negligible.

Another firm started a scheme in November, 1940, under which a chiropodist calls once a fortnight for an entire day. She brings her own equipment and uses the company's first aid room. The firm provides supplies at a cost of about £1 a month and pays the chiropodist 5s. for each patient she sees. Some of the employees stand all day at heavy work, and they have found the service a real benefit. They particularly appreciate the fact that treatment is given on the firm's time.

A soap manufacturing firm which has had a clinic in operation for years employs a chiropodist for three half-days during the week. The cost is not much more than £300 per annum, while the clinic equipment would cost only about £60 at pre-war prices. A charge of 1s. is made for each visit but there is no deduction for loss of time.

—*Industrial Welfare and Personnel Management* 9-12/41

Survey of Books for Executives

The Economics of American Defense. By Seymour E. Harris. W. W. Norton & Company, Inc., New York, 1941. 350 pages. \$3.50.

Mr. Harris states the purpose of this book concisely in the following sentences:

One of the glaring weaknesses of our efforts in the past year has been the apparent lack of a clear, over-all, interrelated view of our various economic tasks. The effort here is to provide just such a simple, workable framework of analysis.

Unfortunately, the subject is neither as clear nor as simple as this statement implies. However, the author has accomplished his self-appointed task to the extent that he has digested and organized a wealth of contemporary material pertaining to the economics of defense into an orderly presentation of the problems. In the final chapter, he applies the arguments developed in the text to a criticism of the conduct of the economic phases of the defense program.

The business reader may find much in the book with which to disagree. In particular, in his chapter on postwar problems the author views rather casually the outlook for a long-continued rise in federal deficit spending after the war's end. On the whole, however, the material is well organized, well presented and stimulating.

A serious problem in writing such a book must be the rapid pace of events and policy development in a war period. Much of the material treated here has been the subject of discussion in business periodicals since the book was written, but the sections on consumption of capital, curtailment of consumption and financing the program, in particular, are still fresh and thought-provoking. It is a tribute to the author's realism that the necessary adjustments of his material to a war status consist primarily of changes in figures rather than in argument.

To this reviewer the value of the book lies more in the organization and analysis of the problem than in the conclusions reached. This orderly presentation is reason enough to recommend the book for early reading by anyone interested in a comprehensive review of the broad economic problems raised by war.

Reviewed by F. D. Newbury, Vice President, Westinghouse Electric & Manufacturing Company.

Effective Foremanship. Edited by Harold B. Maynard. McGraw-Hill Book Company, Inc., New York, 1941. 263 pages. \$2.50.

Today when a new publication reaches the desk of a man responsible

for training, he picks it up with one question in his mind: "Is the material in a form that makes it possible for us to use it at once?"

As a second step, he will examine the contents in the light of his plant's needs, check the coverage on each subject, and verify the accuracy of the statements. *But* if the publication is not so arranged that it has utility in the present situation, it is automatically headed for the plant library shelves "for the duration."

Personnel and training executives will be glad to know that the organization of the material in "Effective Foremanship" makes it of immediate value as a foreman training aid without revision or adaptation.

This book is neither a thesis on the principles of supervisory training nor a generalized discussion of the act of conference leading. The authors have produced 19 concise discussions of 19 specific phases of supervisory responsibility, and each of the discussions was written independently of the others and can be read as a single treatment of the specific subject. The brevity of these sections (the average length is about 12 pages) and their unity make this a helpful and practical text for a foremanship group.

The book represents a diversified cross-section of industrial experience and viewpoints. Indicative of its broad scope are the following chapter headings: "Industrial Organization"; "Complexity of Modern Foremanship"; "The Human Element in Industrial Relations"; "Effective Working Methods"; "Operator Training"; "Control of Pro-

duction Through Time Standards"; "Wage-Payment Problems"; "Production Planning and Scheduling"; "Quality Control"; "Cost Control"; "Promoting Improvements"; and "Waste Control."

There are, naturally, many points in regard to the book on which it would be impossible to obtain unanimous agreement from any group of men active in the training field. Many of us will differ strongly on the approach made in some of the sections. But it would seem fair to say that the average personnel man (if there is such an animal) will find a very high percentage of the content in harmony with his own ideas.

One technique employed throughout should increase the value of the material wherever it is used. To each section there is appended a list of 10 questions, with four answers for each question. As the editor states in the introduction, "None of the answers is absolutely wrong, but one answer is considered by the author of the chapter to be better than the others." It is a device that should stimulate the thinking of an individual reader, and it might also be used in developing an outline for a conference.

With a symposium such as this that might be used as background reading for a conference group, it is natural to suggest that there is also need for a companion publication. Especially to companies that do not have sufficient staff to devote a great deal of time to development material, a series of outlines for the conference leader on the

19 subjects covered might be invaluable.

As the war effort makes it necessary to train more new foremen, increase the effectiveness of veteran foremen, and conduct conversion training with many supervisors, more and more companies will be faced with the problem of designing adequate training programs in a brief period of time. The more publications there are available

that can be used without waste of time on development, the more effectively our supervisors will be prepared to do their jobs.

"Effective Foremanship" is another step toward the goal of producing books in the training field whose material is so organized as to possess immediate value as a training aid. We need more of them.

Reviewed by Martin S. Firth.

Briefer Book Notes

PLANNING INDUSTRIAL RECREATION. By G. Herbert Duggins and Floyd R. Eastwood. Purdue University, Lafayette, Ind., 1941. 82 pages. A practical guide for plant recreation directors by the authors of "Industrial Recreation: Its Development and Present Status." Compiled through a study of the methods of companies which have conducted programs successfully for several years, this monograph contains detailed information on organization, administration and costs of programs, etc., supported by statistical tables. A model constitution for an employees' recreation association is included as an appendix.

PENSION, BONUS AND PROFIT-SHARING PLANS. By Meyer M. Goldstein. Diamond Life Bulletins, Cincinnati, 1941. 104 pages. \$10.00 (including supplements). While this study is addressed primarily to life underwriters, it is commended to any employer who is considering the introduction of an employee benefit or pension plan. Self-administered group annuity, and individual-policy pension plans are discussed and evaluated; the question of money-purchase vs. fixed-benefit plans is considered; and there are valuable chapters on the tax aspects of the plans and the savings that may be effected through them. Issued in loose-leaf form, this material is being supplemented by monthly bulletins.

HOW YOUR BUSINESS CAN HELP WIN THE WAR. Edited by Hartley W. Barclay, with an introduction by Donald M. Nelson. Simon and Schuster, New York, 1942. 111 pages. \$1.00. A practical guide to conversion from non-defense to full-scale wartime production. Indicates how to avoid unnecessary delays in determining what to make, where to go, what kind of a contract to negotiate, and how to subcontract defense orders. A few case histories are included.

PLASTICS CATALOGUE: 1942. Plastics Catalogue Corporation, New York, 1941. 624 pages. \$5.00. An omnibus of plastics information covering materials, plastics engineering, production operations, machinery and equipment, laminates and vulcanized fiber, plastic coatings, synthetic fibers and rubbers, and plastics in defense. Among other features are a bibliography of books and magazine articles dealing with plastics, a chapter on nomenclature, and a trade name section. Directories list the suppliers of plastics, plastic materials and equipment.

MANAGEMENT ENGINEERING. By Nathaniel W. Barnes. Bellman Publishing Company, Inc., Boston, 1941. 12 pages. 50 cents. No. 40 in a series of vocational and professional monographs. A discussion of the profession of the management consultant, with information on the personal qualifications and scholastic training needed for success in this field and the opportunities and remuneration possible for those who do succeed. A

list of schools of engineering with accredited curricula in the subject is a feature of the brochure.

THE BALANCE SHEET OF THE FUTURE. By Roy A. Foulke. Dun & Bradstreet, Inc., New York, 1941. 99 pages. Report of an extensive questionnaire-survey of bankers, accountants, corporate financial executives, and mercantile credit men on accountancy and accounting problems. The study covers a wide range of problems but is concerned mostly with the presentation of information in the balance sheet and accompanying certificate. Important balance-sheet and operating ratios for 78 lines of business are included.

THE ROAD TO SALESMANSHIP. By Robert H. W. Welch, Jr. The Ronald Press Company, New York, 1941. 95 pages. \$2.00. An informal exposition of the broad principles making for success in salesmanship. The text is thickly sprinkled with anecdotes illustrating the do's and don't's of effective salesmanship.

ADVERTISING. By Kenneth Goode. Greenberg, Publisher, Inc., New York, 1941. 497 pages. \$3.00. A new and revised edition of the manual which advertising men, in a *Printers' Ink* poll, voted "the most useful book on advertising." A complete and informative volume which includes illuminating chapters on how to write advertising, how to sell it, and how to use it; along with pointers for those who want to break into the business. There are working chapters on the use of pictures, color, radio, billboards, trade names, packaging, show windows, sampling and stunts, mail-order and outdoor advertising, and dozens of other subjects. First published in 1932 under the title, "Modern Advertising."

AMERICAN JOB TRENDS. By H. Dewey Anderson and Percy E. Davidson. Science Research Associates, Chicago, 1941. 52 pages. 50 cents. This booklet, Occupational Monograph No. 22 in the "American Job Series," is based on the 600-page study, "Occupational Trends in the United States," by the same authors. It covers shifts in the labor market in 10 broad fields: agriculture, forestry and fishing, mining, manufacturing and building, distribution, trade, public service, professional service, domestic and personal service, and clerical work. Illustrated by charts and tables.

COMMODITIES IN INDUSTRY: THE 1940 COMMODITY YEAR BOOK. Commodity Research Bureau, Inc., New York, 1940. 708 pages. \$7.50. A reference book providing data on the production of various commodities, their manufacture and distribution, and on price trends. Includes studies on such topics as war and its effect on commodity prices, production and distribution, the threat of plastics and synthetics as competitors of basic commodities. Seventy-five commodities are covered in individual chapters. Statistics are presented in chart and tabular form.

THE STOCK MARKET. By Charles A. Dice and Wilford J. Eiteman. McGraw-Hill Book Company, Inc., New York, 1941. Second edition. 486 pages. \$4.00. In non-technical terms this book relates the past and recent history of the stock market; describes established customs, the technique of operation and its effect in the making of prices, technical and analytical aspects of the work, and essential functions the market performs for society. Includes brief descriptions of the methods which investment services use in forecasting market behavior and general economic conditions.

EFFECTIVE ADVERTISING. By Harry Walker Hepner. McGraw-Hill Book Company, Inc., New York, 1941. 584 pages. \$4.00. A textbook for first-year advertising students. The book's new approaches to the subject include: recognition of the consumer movement as a reflection of social changes now taking place; inclusion of background information for, and emphasis upon, reading current advertising journals; explanations of current field survey methods and results of readership reports made by field organizations.

WHAT EVERY ADVERTISER SHOULD KNOW BEFORE IMPLYING THAT THE UNITED STATES GOVERNMENT OR ITS PERSONNEL APPROVES HIS GOODS. Division of Research, Better Business Bureau, New York, 1941. 19 pages. 10 cents. This bulletin is designed to aid advertisers, advertising agencies and media in understanding the rules and regulations of the various departments of the United States Government in respect to references in advertising to the Federal Government, its personnel, equipment, tests, purchases, inspections, etc.